

GONG SHANSAN

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🎓 EDUCATION

Shanghai Jiao Tong University, Bachelor, EE, GPA: 3.84/4.3 2015.09 – 2019.06
Shanghai Jiao Tong University, Master, CS GPA: 3.78/4 2019.09 – 2022.03

👤 EXPERIENCE

Diffusion Language Model Research Program 2022.06 – Present

At present, D3PM can realize unconditional generation in discrete space, and continuous Diffusion-LM can complete more complex generation tasks, including fine-grained controllable text generation. Based on this, diffusion language model is my current research topic. Details are in the Motivation Letter.

Dynamic Multi-Domain Product Categorization Industry Program 2021.12 – 2022.03

For e-commerce platforms, when trying to category the products, there are multiple domain-specific category taxonomies and each of them evolves dynamically over time.

- We propose a retrieval and rerank framework. Considering that pure vector matching may fall for the surface form of text, we further leverage the universal concept “knowledge” across different domains to complement textual semantics. Experiment results verify the knowledge integration cross domains.

Session-based News Recommendation Research Program 2019.09 – 2021.09

News recommendation for anonymous users is useful on many news portals. It is challenging because both the life span of news articles and the duration of user visits are short. Under the session-based scenario, we model the news recommendation task as the Next-Item Prediction task.

- We leverage the positive/negative and neutral implicit feedback of the user to figure out that to what extend the user likes/dislikes the article, which better tackles the user cold-start problem: we can make accurate prediction about anonymous users earlier in the session.
- By proper representation of the content and temporal information in the sessions, our approach better handles the article cold-start problem and mitigate the dilemma between diversity and accuracy.

⚙️ INTERNSHIP

Microsoft STCA NLP Software Engineer 2021.06 – 2021.09

In order to optimize the search result, it is necessary to judge whether the intents of different search Query1 and Query2 are consistent, which is formulated as a binary classification task.

- Based on the cross-language pre-training model InfoXLM, introduce PostWeb information (ie, text information such as the title, link, and abstract of the Query search result) as an additional feature of the Query.

📖 PUBLICATIONS

- [1] Shansan Gong, Kenny Zhu. *Positive, Negative and Neutral: Modeling Implicit Feedback in Session-based News Recommendation* (Accepted by SIGIR 2022)
- [2] Shansan Gong, Kenny Zhu and etc. *Enhanced Semantic Space: Integrate Concepts to Unify Dynamic Multi-Domain Product Categorization* (AAAI 2023 Under Review)
- [3] Kaijian Li, Shansan Gong and Kenny Zhu. *Few-Shot Natural Language Inference Generation with PDD: Prompt and Dynamic Demonstration* (arxiv version)

♥ HONORS AND AWARDS

2nd Prize, China Post-Graduate Mathematical Contest in Modeling Nov. 2020
Shanghai Jiao Tong University Wish Scholarship 2021
Shanghai Jiao Tong University Shenzhen Stock Exchange Scholarship 2020